Are East Asian companies benefiting from Western board practices?

Nowland, John E. (2006) Are East Asian companies benefiting from Western board practices?. In Proceedings World Business Ethics Conference 2006.

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Short autobiography

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ABSTRACT

Since the Asian crisis, East Asian nations have strived to introduce corporate governance codes, directing companies how to best improve their corporate governance practices. However, these codes have not been universally accepted by East Asian companies. This study examines the adoption of major board-related corporate governance recommendations by large non-financial companies in seven East Asian nations and investigates whether improvements in these board governance mechanisms have been associated with increased operating performance and market value. The results indicate that family-owned companies started with worse board governance and have been least likely to improve their board governance since the crisis. Overall, bigger, faster growing, non-family-owned companies with less concentrated ownership have been more likely to improve their board governance. Splitting of the positions of Chairman and CEO, creation of audit and nomination committees and improvements in overall board governance were found to have a positive relationship with subsequent operating performance and/or market value.

Keywords: Board committees, board independence, corporate governance, East Asia.

Running Head: East Asian Board Governance

Introduction

After a prolonged period of economic prosperity, the Asian crisis of 1997-98 was a major indicator that corporate governance practices in East Asia were in need of improvement. Since then, both national and international bodies have formulated and issued corporate governance codes and best practice guidelines in an effort to improve governance practices in the region. These codes have consistently pushed for increased board independence, the separation of the positions of Chairman and CEO, and the creation of independent audit, nomination and remuneration committees. These mechanisms are expected to improve the corporate governance within a firm and decrease the likelihood of expropriation by corporate insiders.

The recommendations, however, are based on best practice guidelines from the US and UK, where ownership structures are diverse and board governance mechanisms are already well established. In contrast, East Asian companies have concentrated ownership and weak board governance. This means adherence to the new recommendations will involve significant board-related changes for most companies. This paper examines whether East Asian companies have made these changes and determines the characteristics of companies that have made improvements to their board governance.

In addition, prior research has found a strong association between good governance and operating performance and firm value (Klapper and Love, 2002; Durnev and Kim, 2005; Brown and Caylor, 2005). However, there has been no direct evidence that improvements in board-related governance mechanisms are associated with better performance and higher value. This study fills this gap, by using panel data to relate changes in board governance measures to changes in operating performance and firm value. Furthermore, in contrast to recent research, which

focuses on broad corporate governance issues, this study concentrates on specific and actionable board governance mechanisms. This provides East Asian companies with direct evidence as to whether there are benefits associated with improvements in these specific corporate governance mechanisms.

This study examines the largest non-financial companies across seven East Asian nations and finds that companies from Hong Kong, Indonesia, Malaysia, Singapore, South Korea and Thailand, but not Taiwan, have been active in improving their board governance since the crisis. Overall, the following types of companies were more likely to improve their board governance: bigger, faster growing, non-family-owned, lower ownership concentration, smaller control-cashflow rights wedge and worse prior board governance. Furthermore, the results indicate that board governance is important in East Asia. Splitting of the positions of Chairman and CEO, creation of audit and nomination committees and improvements in overall board governance have a positive relationship with subsequent operating performance and/or market value. However, this is not the case for improved board and audit committee independence.

Literature Review

Traditionally, corporate governance was not a priority in East Asia. It was not until the Asian crisis that corporate governance was identified as an area in need of improvement. During the crisis, stock prices in the region plummeted. On average, prices dropped by over 80% in Indonesia, 70% in Malaysia, Thailand and the Philippines, 60% in South Korea, 50% in Hong Kong, 40% in Singapore and 30% in Taiwan.[1] Academic research has subsequently shown that countries with poorer investor protection were hit hardest during the crisis (Johnson et al., 2000) and that

companies with poorer corporate governance performed worse during the crisis (Mitton, 2002; Lemmom and Lins, 2003).

Since then, an abundance of international bodies, including the World Bank, Asian Development Bank and OECD, and various national agencies have formulated and issued corporate governance codes and best practice guidelines to assist companies in improving their corporate governance practices. The codes consist of recommendations derived from US and UK best practice guidelines relating to board composition and function, directors' duties, disclosure, shareholders' and stakeholders' rights, and audit and internal control systems. However, unlike the Sarbanes-Oxley Act in the US, the codes in East Asia are voluntary, with companies at most having to provide explanation for any deviance from best practice guidelines.

The first question raised by this research is: Are these recommendations being adopted by East Asian companies? Palepu et al. (2002) argue that while most countries are now adopting Western (Anglo-Saxon) corporate governance standards, there is little evidence that these standards are being widely implemented. Claessens et al. (2000) explain that most East Asian companies have concentrated ownership structures, with control in the hands of family groups or government entities. East Asian companies are also starting from a lower corporate governance level, with lower levels of board independence and a relative scarcity of board committees. This means that companies will need to expend considerable resources to meet the recommendations. So which companies will be willing to bear the costs?

Previous research indicates that size, growth, profitability, financing needs and ownership are all related to the level of corporate governance (Klapper and Love, 2002; Durnev and Kim, 2005; Black, Jang and Kim, 2005). Larger and more profitable companies are more likely to have the resources to spend on corporate

governance outcomes. Corporate governance is likely to be more important for companies growing quickly and in need of external financing. Companies controlled by a family group are less likely to see the benefits of expenditure on corporate governance.[2] Companies with smaller boards find it easier to agree on implementing new corporate governance measures. Also, it may be easier for companies with good corporate governance already to improve their practices. Conversely, companies with poorer governance may be catching up. Therefore, corporate governance improvements are expected to be a function of size, growth, profitability, ownership, board size and the prior standard of corporate governance.

In addition, both survey and empirical evidence indicates that investors are willing to pay more for companies with good corporate governance. Surveys conducted by McKinsey & Co. indicate that institutional investors are willing to pay an average premium of 20 percent for companies with good corporate governance (Coombes and Watson, 2000). Academic research indicates that better corporate governance has been associated with higher company valuations (La Porta et al., 2002; Klapper and Love 2002; Durnev and Kim 2005).[3] A similar relationship has also been found between corporate governance and operating measures such as return on assets (Klapper and Love 2002; Brown and Caylor 2005; Larcker, Richardson and Tuna 2005). Individual governance attributes such as board independence and audit committee independence have also been linked to performance and value (Weir, Laing and McKnight, 2002; Hermalin and Weisbach, 2003; Black, Jang and Kim, 2006).

This implies that companies improving their corporate governance practices should also see improvements in their operating performance and market value. However, while recent research has examined the market reaction to new corporate governance regulations (Chhaochharia and Grinstein 2005; Li et al., 2004; Jain et al.

2005; Zhang 2005; Zimmermann et al., 2005; Anson and Rodriguez, 2005), no study has yet directly related improvements in individual corporate governance mechanisms to changes in both operating performance and market value. This study intends to fill this void, by relating changes in major board-related governance mechanisms, such as board independence, the separation of the positions of chairman and CEO, and the creation of audit, nomination and remuneration committees, to changes in operating performance and market value.

Data

This study examines the seven East Asian nations of Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan and Thailand.[4] The sample comprises 221 companies that meet the following criteria: (1) top-100 companies by market capitalization in each country in 2004, (2) excluding banking, insurance and financial holding companies (SIC codes 60 - 64 and 67), (3) Worldscope data available for the period 1998-2004, and (4) board data available for the period 1998-2004. The largest companies in each country are examined as they are most likely to have the resources to improve their corporate governance practices. Data on board and committee composition is obtained directly from company annual reports. Annual reports were sourced from companies and stock exchange websites. Financial data is from Worldscope.

Table 1 shows the country and industry composition of the sample. The sample companies come from Hong Kong (47), Indonesia (9), Malaysia (61), Singapore (34), South Korea (10), Taiwan (49) and Thailand (11).[5] There is good variation in industry participation across the countries, with most companies coming from the consumer durables (45), utilities (25) and basic industry (24) sectors.

<< Insert Table 1 here>>

Table 2 provides descriptive statistics of the sample companies in 2004. Panel A details the main financial and ownership variables. Total Assets is measured in billions of US dollars. Tobin's Q is calculated as total assets minus the book value of equity plus the market value of equity all divided by total assets. Return on assets (ROA) and one-year sales growth (Growth) are percentages. Leverage is the ratio of debt to total assets. Board size is the number of directors on the board. Cash Rights is the percentage shareholding of the largest shareholder. Wedge is the ratio of control rights to cashflow rights of the largest shareholder following the methodology of Claessens et al. (2000).

On average, companies from South Korea and Hong Kong are larger than those from the other countries. Tobin's Q ratios, ROA and Growth are largely consistent across countries with the exception of companies from South Korea, which have lower growth and lower Tobin's Qs. This is not unexpected due to the size of the South Korean companies. Debt levels are highest in Indonesia and Thailand at 32 percent of total assets. Hong Kong, South Korea and Thailand have the biggest boards. Cashflow rights of the largest shareholder are highest in Indonesia, Hong Kong and Malaysia and lowest in Taiwan. The ratio of control to cashflow rights is highest in Hong Kong and Taiwan. Panel B shows that the majority of sample companies in Hong Kong (72%) and Taiwan (65%) have family groups as their largest shareholders. They are followed closely by Thailand (45%) and Malaysia (41%). In Indonesia, Singapore and South Korea the largest shareholders are usually government entities or other companies. Overall, just less than half of the sample (108 companies) are

family-owned and the remainder (113 companies) are non-family owned.

<< Insert Table 2 here>>

Appendix A presents the board-related corporate governance recommendations in each country at the end of 2004.[6] Hong Kong, Malaysia, Singapore and Thailand all have English common law origins with a single-tier board structure. Indonesia has a French civil law origin with a dual-tier board structure.[7] South Korea and Taiwan have a German civil law origin, with boards in Taiwan consisting of both directors and supervisors.[8] Hong Kong, Malaysia and Singapore all recommend that one-third of the board of directors be independent, Indonesia recommends 30%, South Korea 50% for large public companies, Taiwan at least one independent director and Thailand recommends a sufficient number of independent directors. All countries, with the exception of South Korea, specifically recommend the separation of the positions of Chairman and CEO. Singapore recommends all majority independent committees. Malaysia and South Korea recommend majority independent audit and nomination committees, while Hong Kong and Thailand recommend majority independent audit committees. Indonesia recommends some independence for nomination and remuneration committees and audit committees independent of company insiders. Taiwan only recommends the creation of an audit committee and does not specify independence.

Methodology

As an anchor for the following analysis, the first model relates board governance to company characteristics in 1998. This identifies which types of companies had

better or worse board governance at the beginning of the sample period. Previous research indicates that size, growth, profitability, ownership structure and board size are related to the level of corporate governance (Klapper and Love, 2002; Durnev and Kim, 2005; Black, Jang and Kim, 2005; Lins, 2003).

$$\begin{aligned} CG_i = {} & \alpha + \beta_1 SIZE + \beta_2 GROWTH + \beta_3 ROA + \beta_4 CASH + \beta_5 CASH2 \\ & + \beta_6 WEDGE + \beta_7 BLOCK + \beta_8 FAMILY + \beta_9 BSIZE + \beta_{10} XLIST + \varepsilon_i \end{aligned} \quad (1)$$

where CG_i is the corporate governance measure (board independence (BIND)[9], Chairman/CEO split (CCSPLIT), existence of audit, nomination and remuneration committees (AC, NC, RC), audit committee independence (ACIND) and the overall board governance score (BOARD)[10]), SIZE is the natural logarithm of total assets in US dollars, GROWTH is one year sales growth, ROA is return on assets, CASH is the cashflow rights of the largest shareholder, CASH2 is the squared cashflow rights of the largest shareholder, WEDGE is the ratio of control to cashflow rights of the largest shareholder, BLOCK is a dummy variable equal to one if a non-management blockholder exists with share ownership of greater than 10 percent, FAMILY is a dummy variable equal to one if the largest shareholder is a family group, BSIZE is the size of the board of directors and XLIST is a dummy variable equal to one if the company has an equity listing on a US stock exchange.[11] All continuous independent variables are adjusted by the country-year average. This allows for cross-country comparison. The regressions also include country dummies to control for cross-country differences in the governance measures. Ordinary least square regressions are used for continuous dependent variables and logit regressions are used for binary dependent variables.

Model 2 then relates changes in board governance measures over the sample period (1998-2004) to company characteristics. Size, growth, performance, ownership

structure, board size and prior standard of board governance are all expected to be related to corporate governance changes. Lagged variables are used as they are more representative of the company characteristics in place when board governance changes are implemented. As the observations are pooled, continuous independent variables are adjusted by the country-year average to allow for cross-country comparison.

$$\Delta \mathrm{CG}_{\mathrm{it}} = \alpha + \beta_1 SIZE_{\mathrm{t-1}} + \beta_2 GROWTH_{\mathrm{t-1}} + \beta_3 ROA_{\mathrm{t-1}} + \beta_4 CASH_{\mathrm{t-1}} + \beta_5 CASH2_{\mathrm{t-1}} + \beta_6 WEDGE_{\mathrm{t-1}} + \beta_7 BLOCK_{\mathrm{t-1}} + \beta_8 FAMILY_{\mathrm{t-1}} + \beta_9 BSIZE_{\mathrm{t-1}} + \beta_9 CG_{\mathrm{it-1}} + \varepsilon_{it} \quad (2)$$

where $\Delta \mathrm{CG}_{\mathrm{it}}$ is the change in the corporate governance measure (BIND, CCSPLIT, AC, NC, RC, ACIND and BOARD) during period t and $\mathrm{CG}_{\mathrm{t-1}}$ is the level of the corporate governance measure at time t-1. Other variables as previously defined. Ordinary least square regressions are used for continuous governance changes and logit regressions are used for binary governance changes. The regressions also include country and year dummy variables and robust standard errors.

The third model then relates changes in corporate governance measures to changes in market value and firm performance. [12] Corporate governance improvements are expected to increase firm performance and value. Both current and lagged corporate governance changes are included in the model to account for the potentially contemporaneous and lagged effects of corporate governance changes on firm value and performance.

$$\Delta \mathrm{VOI}_{\mathrm{it}} = \alpha + \beta_1 \Delta CG_{\mathrm{it}} + \beta_2 \Delta CG_{\mathrm{it-1}} + \sum_{i=1}^{n} \delta_{\mathrm{i}} \Delta CONTROL_{\mathrm{it}} + \phi\ \Delta \mathrm{VOI}_{\mathrm{it-1}} + \varepsilon_{it} \quad (3)$$

where $\Delta \mathrm{VOI}_{\mathrm{it}}$ is the change in the variable of interest (Tobin's Q (TQ) is the proxy for firm value and ROA is the proxy for firm performance) during period t, $\Delta \mathrm{CG}_{\mathrm{it}}$ is the change in the corporate governance measure (BIND, CCSPLIT, AC, NC, RC, ACIND and BOARD) during period t, $\Delta \mathrm{CG}_{\mathrm{it-1}}$ is the change in the corporate governance

measure during the previous period, $\Delta CONTROL_{it}$ are changes in standard control variables including SIZE, GROWTH, leverage (LEV), CASH, WEDGE, BSIZE, and regression specific control variables such as ROA during period t, and ΔVOI_{t-1} is the change in the variable of interest during the previous period.[13] The regressions include fixed period effects to control for general economic conditions and robust standard errors.[14]

Results & Discussion

Table 3 presents the average board governance measures of sample companies in each country and for family-owned versus non-family-owned companies from 1998 to 2004. Due to the small number of observations for Indonesia, South Korea and Thailand, only limited conclusions can be drawn for these countries. Panel A shows that board independence has increased for all countries since 1998, with the average companies in South Korea and Singapore having a majority independent board by 2004. Companies from Hong Kong, Indonesia, Malaysia and Thailand have increased their board independence to over 30 percent on average, but Taiwan still has low levels of board independence. A total of 126 companies improved their board independence and 31 reduced their board independence over the period, with the majority of the changes occurring in non-family-owned companies. As at 2004, family-owned companies still had lower board independence than non-family-owned companies.

<< Insert Table 3 >>

Panel B shows how the separation of the positions of Chairman and CEO has

evolved over the period. There is evidence of small upward and downward changes in the separation of the positions in Malaysia, Singapore and Taiwan, with only Hong Kong having seen an upward trend in the splitting of these two key positions over the period. In all, 11 companies split the Chairman and CEO positions over the period and six combined the positions. As at 2004, family-owned companies were still less likely to have the positions split than non-family-owned companies.

Panels C, D and E show the existence of audit, nomination and remuneration committees across the period. By 2004, nearly all companies had established audit committees, with the exception being companies from Taiwan.[15] Nomination and remuneration committees have become increasingly popular over the period, being most prolific in Singapore, Malaysia and Thailand, and least prolific in Taiwan. All three panels indicate that family-owned companies were less likely to have established these committees than non-family-owned companies.

Panel F shows changes in audit committee independence over the period. Most companies have either created majority independent audit committees or maintained majority independent audit committees since 1998. Only Indonesia and Singapore have seen large upward trends in their audit committee independence over the period. There is little difference between family-owned and non-family-owned companies as it seems that family-owned companies that do establish audit committees, maintain majority independent committees.[16]

Panel G presents the results for the overall board governance score. This is computed as follows: one point for each independent director, one point for Chairman/CEO split and one point for each board committee (audit, nomination and remuneration).[17] Overall, companies from most countries have seen substantial improvement in their overall board governance scores. The exception being

companies from Taiwan, which have seen only a slight improvement. In total, 161 companies improved their board governance and five companies saw their board governance deteriorate between 1998 and 2004.[18] As at 2004, family-owned companies still had weaker board governance than non-family-owned companies.

Table 4 reports the results for model 1, which examines the determinants of board governance in 1998. This provides an anchor for the following analysis by indicating which types of companies already had strong board governance in 1998.[19] The results indicate that larger companies, non-family-owned companies, companies with smaller boards and companies with less concentrated ownership had higher board independence in 1998. Smaller companies, non-family-owned companies and companies with bigger boards were more likely to have split the positions of Chairman and CEO. Non-family-owned companies, companies with a non-management blockholder and companies not cross-listed were more likely to have established audit committees.[20] Larger companies, companies with moderately lower ownership concentration and companies without a non-management blockholder were more likely to have established a remuneration committee. Finally, larger companies, non-family-owned companies, companies with a lower wedge between control and cashflow rights and companies with bigger boards had better overall board governance.[21] No notable results were found for nomination committees and audit committee independence. This preliminary analysis indicates that by 1998 larger companies had already established stronger board governance and that family-owned companies were already lagging behind. This is consistent with the findings of previous research (Klapper and Love, 2002; Durnev and Kim, 2005; Black, Jang and Kim, 2005).

<< Insert Table 4 >>

Table 5 reports the results for the second model, which relates board governance changes to company characteristics. The first regression shows that changes in board independence are positively related to firm size and ROA, and negatively related to family ownership, the control-cashflow rights wedge, board size, and the prior level of board independence. The third regression shows that the creation of audit committees is negatively related to the cashflow rights of the largest shareholder and the existence of a non-management blockholder. The sixth regression shows that changes in audit committee independence are negatively related to the cashflow ownership of the largest shareholder, the control-cashflow rights wedge, and the prior level of audit committee independence. The final regression shows that an improvement in overall board governance is positively related to firm size and growth and negatively related to the cashflow ownership of the largest shareholder, the control-cashflow rights wedge, family ownership, board size and the prior level of board governance. There were no significant results in the other regressions.

<< Insert Table 5 >>

Overall, a number of conclusions can be drawn from these results. First, on average, companies that started the period with worse board governance are catching up to those with better board governance practices. Therefore, it does appear that corporate governance codes have enticed the average firm to improve their board governance. Second, family-owned companies started with worse board governance and did not close the gap on non-family-owned companies. If anything, the gap

between the overall board governance of family-owned and non-family-owned companies actually widened over the period. This indicates that family-owned companies are intentionally not improving their board governance to the level of non-family-owned companies in order to retain private benefits of control. This is consistent with Dahya et al. (2006) who find that only dominant shareholders not worried about their loss of perquisites will maintain stronger boards. It also indicates that corporate governance code recommendations have not been effective in improving board governance in family-owned companies. Third, bigger, faster growing companies with smaller boards, lower cashflow ownership and a smaller control-cashflow rights wedge were more likely to improve their overall board governance. Bigger and faster growing companies are more likely to need financing from external stakeholders, where improved board governance enhances transparency and credibility. Smaller boards may find it easier to agree on implementing board governance improvements than larger boards. Lower cashflow ownership and a smaller control-cashflow rights wedge indicate less concentrated ownership, which means less resistance from owners in implementing board governance changes.

Model 3 then relates changes in the board governance measures to changes in firm value and operating performance. As the models include fixed period effects, any significant results here are not attributable to period-specific conditions, such as bull or bear markets. Table 6 reports the results for the model relating changes in the board governance measures to changes in Tobin's Q. After controlling for other factors affecting a change in the Tobin's Q ratio, a significant positive association is found between firm value and the creation of remuneration committees. This could indicate that the creation of remuneration committees is rewarded with increased firm value or that remuneration committees are created during periods of share price growth. A

significant negative association is found between firm value and board independence. Similarly, this could indicate that increased board independence results in lower share prices or that board independence is increased during periods of declining share prices. Positive lagged relationships are found between firm value and the splitting of the positions of Chairman and CEO and the creation of audit and nomination committees. This indicates that splitting the two key leadership positions and the creation of audit and nomination committees are followed by a year of share price growth.

<< Insert Table 6 >>

Table 7 presents the results for the model relating changes in the board governance measures to changes in operating performance (ROA). After controlling for other factors affecting a change in ROA, a significant positive relationship is found between operating performance and the splitting of the positions of Chairman and CEO, the creation of nomination and remuneration committees, and overall board governance. This could indicate that these board governance improvements result in better operating performance or that when operating performance is high these governance improvements are more likely to be implemented. A negative relationship is found between operating performance and the creation of audit committees. Once again this could indicate that the creation of audit committees results in lower operating performance or that audit committees are more likely to be created during a year of poor operating performance. Positive lagged relationships are found between operating performance and the splitting of the positions of Chairman and CEO, the creation of nomination committees and overall board governance. This indicates that improvements in board governance, especially the splitting of the Chairman/CEO

position and the creation of nomination committees, are followed by a period of improved operating performance.

<< Insert Table 7 >>

Put together, the implications of Tables 6-7 are as follows. First, splitting of the Chairman and CEO positions, creation of nomination committees and improvements in overall board governance are associated with improved operating performance in the current and next periods. This indicates a strong relationship between improvements in these board governance measures and improved operating performance. Second, splitting of the Chairman and CEO positions and creation of audit and nomination committees are followed by a year of share price growth. This shows that companies are not immediately rewarded for improving these board governance mechanisms but are rewarded once the effect of their implementation has been felt. Third, the creation of remuneration committees is associated with increased value and operating performance, and the creation of audit committees is associated with lower operating performance. This may mean that companies are immediately rewarded for creating remuneration committees or that companies tend to create remuneration committees during periods of strong performance and share price growth and create audit committees during a period of poor operating performance. If this is the case then companies may be establishing these committees at opportunistic times. Fourth, improvements in board independence are associated with lower market value and are followed by a year of lower operating performance, and improved audit committee independence has not relationship with value and performance. The clear result here is that improved board independence and audit committee independence

does not have a positive effect on operating performance and firm value.

Conclusions

This paper examines which East Asian companies have improved their board-related corporate governance measures in the years since the Asian crisis and whether these improvements have been associated with better operating performance and increased market value. Unlike previous research, the focus of this study is on individual board governance measures and not a broad corporate governance index. While a broad corporate governance index is a wider measure of firm governance quality, it does not provide identifiable and actionable ways for companies to improve their corporate governance. This research provides East Asian companies with direct evidence as to whether there are benefits associated with improvements in specific board governance measures.

The results can be summarized as follows. By 1998, larger companies had already established stronger board governance and family-owned companies were already lagging behind. Over the period 1998 to 2004, companies from Hong Kong, Indonesia, Malaysia, Singapore, South Korea and Thailand, but not Taiwan, have been active in improving their board governance. Overall, the following types of companies were more likely to improve their board governance: bigger, faster growing, non-family-owned, lower ownership concentration, smaller control-cashflow rights wedge and worse prior board governance.

Furthermore, the results indicate that board governance is important in East Asia. Splitting of the Chairman and CEO positions, creation of nomination committees and improvements in overall board governance are associated with improved operating performance in the current and next periods. Also, splitting of the Chairman and CEO

positions and creation of audit and nomination committees are followed by a year of increased firm value. However, this is not the case for improved board and audit committee independence.

There are a number of implications of these results. First, companies that started the period with worse board governance are catching up to those with better board governance practices. Therefore, it does appear that corporate governance codes and other regulations have enticed the average firm to improve their board governance. However, there seems to be cultural or institutional factors in Taiwan that are keeping Taiwanese companies from significantly improving their board governance. Second, family-owned companies started with worse board governance and have been least likely to improve their board governance since the crisis. Therefore, another approach needs to be found to entice family-owned companies to improve their governance practices. Third, the results indicate that board governance is important in East Asia. Splitting of the positions of Chairman and CEO, creation of audit and nomination committees and improvements in overall board governance have a positive relationship with subsequent operating performance and/or market value. Therefore, East Asian companies now have direct evidence that there are benefits to implementing these specific board governance mechanisms.

Appendix A – Board-Related Corporate Governance Code Recommendations

Board-related corporate governance code recommendations in each country at the end of 2004. Data sourced from corporate governance codes and other regulations for each country on the Asian Corporate Governance Association website. Board size and independence in Taiwan does not include supervisors. In Indonesia, board data refers to the Board of Commissioners.

	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand
Board Independence	1/3	30%	1/3	1/3	50%	>=1 director	Sufficient
Chairman/CEO separation	Yes	Mandatory	Yes	Yes	-	Yes	Yes
Audit committee	Majority independent	Independent of directors*	Majority independent	Majority independent	Majority independent	Yes	Majority independent
Nomination committee	Yes	Some independence	Majority independent	Majority independent	Majority independent	-	Yes
Remuneration committee	Yes	Some independence	Yes	Majority independent	Yes	-	Yes

* Directors in Indonesia are the equivalent of company executives.

Acknowledgements

Thanks to helpful comments from Stephen Gray, Tony Cavoli and participants at the World Business Ethics Forum 2006 and the AsianFA Doctoral Colloquium 2006. Thanks also to Vanitha Ragunathan for providing some of the data used in this study.

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Table 1 – Country and Industry Composition

	Country of Origin							
Industry	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand	**Total**
Oil	0	1	1	1	2	0	1	**6**
Consumer Durables	4	2	7	11	2	18	1	**45**
Basic Industry	2	3	7	3	1	7	1	**24**
Food & Tobacco	5	1	12	2	0	2	0	**22**
Construction	3	0	7	0	1	4	1	**16**
Capital Goods	2	0	2	0	0	9	0	**13**
Transportation	7	0	3	3	1	5	1	**20**
Textiles & Trade	5	0	3	1	0	2	2	**13**
Services	1	0	1	3	0	1	1	**7**
Leisure	0	0	5	4	0	0	0	**9**
Utilities	7	2	7	2	3	1	3	**25**
Land Development	11	0	6	4	0	0	0	**21**
Total	**47**	**9**	**61**	**34**	**10**	**49**	**11**	**221**

Table 2 – Descriptive Statistics

Panel A – Financial and Ownership Variables

	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand
Total Assets	7.69	2.03	1.40	2.70	27.19	3.53	2.08
Tobin's Q	1.80	1.49	1.62	1.47	1.19	1.47	1.59
ROA (%)	10.11	14.16	9.75	14.24	11.76	10.36	10.85
Growth (%)	12.90	24.47	11.01	15.87	4.22	17.86	9.06
Leverage	0.21	0.32	0.20	0.20	0.31	0.26	0.32
Board Size	12.47	6.67	8.85	9.44	11.80	9.48	12.18
Cash Rights	0.41	0.53	0.40	0.37	0.22	0.16	0.33
Wedge	1.47	1.17	1.32	1.22	1.00	1.45	1.12

Mean statistics of sample companies by country in 2004. Total Assets are in billions of US dollars. Tobin's Q is calculated as total assets less the book value of equity plus the market value of equity all divided by total assets. ROA is return on assets. Growth is one year sales growth. Leverage is the ratio of debt to total assets. Board size is the number of directors on the board. Cash Rights is the percentage shareholding of the largest shareholder. Wedge is the ratio of control rights to cashflow rights of the largest shareholder (Claessens et al., 2000). ROA and Growth are percentages. Data sourced from Worldscope and company annual reports.

Panel B – Largest Owners of Sample Companies

	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand
Family	72%	12%	41%	29%	10%	65%	45%
Company	0%	44%	21%	24%	70%	14%	36%
Government	26%	44%	25%	38%	10%	6%	19%
Other	2%	0%	13%	9%	10%	15%	0%

Largest shareholders of sample companies by country in 2004. Largest shareholders include founding families, companies, government agencies and others (individuals, co-founders and other organizations). Data sourced from company annual reports.

Table 3 – Board Governance Measures 1998-2004

Panel A – Board Independence (BIND)

	1998	1999	2000	2001	2002	2003	2004	+	-
Hong Kong	0.28	0.27	0.28	0.28	0.30	0.31	0.33	29	16
Indonesia	0.18	0.18	0.18	0.26	0.37	0.39	0.40	8	1
Malaysia	0.34	0.34	0.34	0.35	0.38	0.40	0.41	43	8
Singapore	0.46	0.46	0.48	0.48	0.52	0.53	0.53	21	5
South Korea	0.47	0.48	0.50	0.54	0.57	0.59	0.60	7	1
Taiwan	0.00	0.01	0.01	0.01	0.02	0.03	0.05	10	0
Thailand	0.27	0.29	0.30	0.31	0.32	0.35	0.36	8	0
Family	0.22	0.22	0.23	0.23	0.25	0.26	0.27	52	13
Non-family	0.31	0.31	0.32	0.34	0.37	0.38	0.40	74	18

Average proportion of independent directors on the board of directors. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

Panel B – Chairman/CEO Separation (CCSPLIT)

	1998	1999	2000	2001	2002	2003	2004	+	-
Hong Kong	0.64	0.64	0.66	0.64	0.64	0.74	0.77	7	1
Indonesia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0
Malaysia	0.82	0.82	0.82	0.80	0.85	0.85	0.83	2	1
Singapore	0.82	0.82	0.85	0.82	0.82	0.79	0.82	2	2
South Korea	0.70	0.70	0.60	0.60	0.60	0.60	0.60	0	1
Taiwan	0.86	0.86	0.80	0.83	0.82	0.81	0.83	0	1
Thailand	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0
Family	0.75	0.74	0.73	0.72	0.73	0.76	0.76	4	2
Non-family	0.85	0.87	0.86	0.87	0.86	0.87	0.88	7	4

Proportion of companies with the positions of Chairman and CEO separated. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

Panel C – Audit Committee (AC)

	1998	1999	2000	2001	2002	2003	2004	+	-
Hong Kong	0.55	0.89	0.89	0.91	0.91	0.98	0.98	20	0
Indonesia	0.22	0.22	0.44	0.77	0.88	0.88	1.00	7	0
Malaysia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0
Singapore	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0
South Korea	0.20	0.30	0.50	0.60	0.70	0.70	0.80	6	0
Taiwan	0.00	0.00	0.00	0.00	0.04	0.06	0.08	4	0
Thailand	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1	0
Family	0.53	0.65	0.65	0.68	0.68	0.70	0.70	18	0
Non-family	0.69	0.74	0.77	0.79	0.82	0.84	0.87	20	0

Proportion of companies with an audit committee. The plus (+) and minus (-) columns represent the

number of companies with positive or negative changes over the period. Data sourced from company annual reports.

Panel D – Nomination Committee (NC)

	1998	1999	2000	2001	2002	2003	2004	+	-
Hong Kong	0.00	0.00	0.02	0.06	0.06	0.19	0.23	11	0
Indonesia	0.00	0.00	0.00	0.00	0.33	0.44	0.44	4	0
Malaysia	0.02	0.02	0.15	0.60	0.79	0.79	0.79	47	0
Singapore	0.12	0.12	0.15	0.41	0.76	0.94	0.94	28	0
South Korea	0.30	0.30	0.30	0.50	0.50	0.70	0.70	4	0
Taiwan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
Thailand	0.18	0.18	0.18	0.27	0.55	0.64	0.73	6	0
Family	0.03	0.03	0.03	0.18	0.25	0.34	0.34	34	0
Non-family	0.07	0.07	0.10	0.38	0.57	0.63	0.65	66	0

Proportion of companies with a nomination committee. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

Panel E – Remuneration Committee (RC)

	1998	1999	2000	2001	2002	2003	2004	+	-
Hong Kong	0.09	0.09	0.11	0.13	0.13	0.34	0.45	17	0
Indonesia	0.00	0.00	0.00	0.00	0.33	0.66	0.66	6	0
Malaysia	0.07	0.07	0.13	0.64	0.79	0.79	0.79	44	0
Singapore	0.44	0.47	0.53	0.68	0.85	0.97	0.97	18	0
South Korea	0.30	0.30	0.40	0.40	0.40	0.60	0.60	3	0
Taiwan	0.00	0.00	0.00	0.00	0.00	0.02	0.02	1	0
Thailand	0.27	0.27	0.27	0.36	0.55	0.73	0.82	6	0
Family	0.09	0.09	0.09	0.23	0.32	0.41	0.44	38	0
Non-family	0.17	0.18	0.25	0.46	0.55	0.65	0.68	57	0

Proportion of companies with a remuneration committee. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

Panel F – Audit Committee Independence (ACIND)

	1998	1999	2000	2001	2002	2003	2004	+	-
Hong Kong	0.81	0.85	0.86	0.87	0.87	0.86	0.88	7	2
Indonesia	0.50	0.50	0.75	0.82	0.88	0.83	0.91	1	0
Malaysia	0.68	0.68	0.68	0.66	0.67	0.71	0.73	29	14
Singapore	0.77	0.77	0.77	0.80	0.85	0.89	0.90	18	0
South Korea	1.00	0.92	0.95	0.96	1.00	0.96	1.00	0	0
Taiwan	-	-	-	-	0.75	0.75	0.75	0	0
Thailand	0.90	0.88	0.91	0.97	0.97	0.98	0.98	1	0
Family	0.73	0.76	0.76	0.76	0.80	0.82	0.83	25	6
Non-family	0.76	0.77	0.78	0.80	0.81	0.82	0.86	31	10

Average proportion of independent directors on the audit committees. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

Panel G – Overall Board Governance (BOARD)

	1998	1999	2000	2001	2002	2003	2004	+	-
Hong Kong	4.49	4.81	5.00	5.11	5.21	5.83	6.28	37	2
Indonesia	2.44	2.44	2.67	3.44	5.00	5.89	5.89	9	0
Malaysia	4.81	4.81	4.92	6.09	6.83	6.95	7.04	56	1
Singapore	6.44	6.38	6.73	7.32	8.23	8.61	8.73	31	0
South Korea	6.90	7.10	7.40	8.40	8.70	9.70	9.80	7	1
Taiwan	0.86	0.88	0.88	0.92	1.00	1.12	1.31	11	1
Thailand	5.55	5.91	6.00	6.37	6.82	7.55	7.73	10	0
Family	3.50	3.63	3.67	4.02	4.34	4.68	4.85	69	1
Non-family	4.80	4.85	5.11	5.83	6.50	6.87	7.06	92	4

Average overall board governance score. Includes one point for each independent director, Chairman/CEO split, and the existence of audit, remuneration and nomination committees. The plus (+) and minus (-) columns represent the number of companies with positive or negative changes over the period. Data sourced from company annual reports.

Table 4 –Determinants of Board Governance in 1998

	BIND	CCSPLIT	AC	NC	RC	ACIND	BOARD
c	0.3003 (0.00)	1.7762 (0.00)	0.8169 (0.02)	-4.7447 (0.00)	-4.0019 (0.00)	0.8853 (0.00)	4.7604 (0.00)
SIZE	0.0271 (0.00)	-0.2921 (0.10)	0.0777 (0.60)	0.2286 (0.57)	0.4175 (0.09)	0.0080 (0.63)	0.3193 (0.00)
GROWTH	-0.0003 (0.43)	-0.0049 (0.61)	0.0019 (0.81)	-0.0263 (0.26)	0.0052 (0.67)	0.0001 (0.98)	-0.0037 (0.47)
ROA	-0.0001 (0.96)	0.0059 (0.82)	-0.0029 (0.88)	0.0350 (0.50)	0.0093 (0.78)	-0.0020 (0.41)	0.0063 (0.61)
CASH	-0.1201 (0.03)	-2.2653 (0.12)	0.6440 (0.57)	0.0386 (0.99)	-3.8361 (0.04)	0.1068 (0.42)	-1.0803 (0.12)
CASH2	0.1178 (0.53)	2.7721 (0.54)	3.7383 (0.39)	6.2090 (0.40)	12.8225 (0.02)	-1.2882 (0.00)	2.3371 (0.32)
WEDGE	-0.0165 (0.24)	-0.4718 (0.15)	0.1421 (0.62)	-1.0843 (0.49)	-1.1876 (0.11)	0.0164 (0.68)	-0.2923 (0.10)
BLOCK	-0.0267 (0.19)	0.5407 (0.33)	1.0189 (0.02)	-0.4961 (0.62)	-1.7361 (0.03)	0.0331 (0.47)	-0.2228 (0.39)
FAMILY	-0.0329 (0.08)	-1.1849 (0.01)	-0.9436 (0.01)	0.4355 (0.65)	0.1288 (0.83)	-0.0495 (0.26)	-0.4519 (0.06)
BSIZE	-0.0098 (0.00)	0.1656 (0.03)	0.0252 (0.64)	0.1331 (0.24)	-0.0444 (0.66)	0.0046 (0.56)	0.1123 (0.00)
XLIST	-0.0535 (0.22)	-0.7772 (0.42)	-1.6051 (0.09)	0.6476 (0.67)	-0.3078 (0.86)	0.1233 (0.41)	-0.8609 (0.12)
Adj/McFadden-R2	0.6757	0.1136	0.1396	0.2559	0.3003	0.1461	0.6705

Regressions relate board governance mechanisms - board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND), overall board governance score (BOARD) - in 1998 to the following variables – the natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), return on assets (ROA), cashflow rights of largest shareholder (CASH), the squared cashflow rights of the largest shareholder (CASH2), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), dummy variable equal to one if a 10% non-management blockholder exists (BLOCK), dummy variable equal to one if the largest shareholder is a family group (FAMILY), size of the board of directors (BSIZE) and a dummy variable equal to one if the company is listed on a US stock exchange (XLIST). All continuous independent variables are adjusted by the country-year average. The regressions also include country dummies to control for cross-country differences in governance measures – coefficients not reported. OLS regressions were used for continuous dependent variables and logit models were used for binary dependent variables. Data sourced from Worldscope and company annual reports.

Table 5 – Regressions of Changes in Board Governance on Company Characteristics

	ΔBIND	ΔCCSPLIT	ΔAC	ΔNC	ΔRC	ΔACIND	ΔBOARD
c	0.0472 (0.00)	-3.6925 (0.00)	-3.5487 (0.00)	-3.7368 (0.00)	-2.5478 (0.00)	0.2137 (0.00)	1.0382 (0.00)
$SIZE_{t-1}$	0.0045 (0.02)	-0.0034 (0.98)	0.0701 (0.68)	-0.0458 (0.68)	-0.0955 (0.38)	-0.0005 (0.88)	0.0838 (0.05)
$GROWTH_{t-1}$	0.0000 (0.16)	-0.0023 (0.77)	0.0001 (0.96)	0.0006 (0.47)	0.0004 (0.59)	0.0001 (0.41)	0.0005 (0.00)
ROA_{t-1}	0.0002 (0.02)	-0.0007 (0.98)	0.0189 (0.27)	-0.0031 (0.82)	-0.0054 (0.67)	0.0001 (0.85)	0.0010 (0.69)
$CASH_{t-1}$	-0.0314 (0.00)	-1.5483 (0.38)	-2.0334 (0.08)	-1.0148 (0.15)	-0.5064 (0.50)	-0.0474 (0.04)	-0.6544 (0.00)
$CASH2_{t-1}$	0.0515 (0.19)	-5.2873 (0.52)	-2.2461 (0.67)	-0.6315 (0.82)	-2.3879 (0.43)	0.0861 (0.29)	0.9559 (0.12)
$WEDGE_{t-1}$	-0.0047 (0.05)	-0.9428 (0.23)	-0.3850 (0.35)	-0.1620 (0.53)	0.1238 (0.53)	-0.0137 (0.00)	-0.0724 (0.09)
$BLOCK_{t-1}$	0.0018 (0.28)	-0.9910 (0.21)	-1.0377 (0.04)	0.1241 (0.62)	0.0711 (0.77)	-0.0016 (0.82)	0.0076 (0.85)
$FAMILY_{t-1}$	-0.0078 (0.00)	-0.4429 (0.39)	0.0425 (0.91)	-0.3173 (0.21)	-0.2440 (0.35)	-0.0069 (0.48)	-0.2174 (0.00)
$BSIZE_{t-1}$	-0.0020 (0.00)	-0.0648 (0.47)	-0.1010 (0.14)	0.0261 (0.56)	0.0754 (0.09)	-0.0006 (0.71)	-0.0054 (0.54)
Lagged level of dependent variable	-0.1224 (0.00)	-	-	-	-	-0.2347 (0.00)	-0.1214 (0.00)
Adj/McFadden-R2	0.0975	0.0469	0.0993	0.0910	0.08184	0.1637	0.1232

Regressions relate changes in board governance mechanisms - board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND) and the overall board governance score (BOARD) - over the period 1998-2004 to the following adjusted lagged variables – the natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), return on assets (ROA), cashflow rights of largest shareholder (CASH), the squared cashflow rights of the largest shareholder (CASH2), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), dummy variable equal to one if a 10% non-management blockholder exists (BLOCK), a dummy variable equal to one if the largest shareholder is a family group (FAMILY), size of the board of directors (BSIZE) and the lagged level of the dependent variable. All continuous independent variables are adjusted by the country-year average. Regressions also include country and year dummy variables– coefficients not reported. OLS regressions were used for continuous dependent variables and logit models were used for binary dependent variables. Regressions include White standard error correction. Data sourced from Worldscope and company annual reports.

Table 6 – Changes in Board Governance Measures Related to Changes in Value (TQ)

	ΔTQ	ΔTQ	ΔTQ	ΔTQ	ΔTQ	ΔTQ	ΔTQ
Where:	*(ΔCG = ΔBIND)*	*(ΔCG = ΔCCSPLIT)*	*(ΔCG = ΔAC)*	*(ΔCG = ΔNC)*	*(ΔCG = ΔRC)*	*(ΔCG = ΔACIND)*	*(ΔCG = ΔBOARD)*
c	-0.0084	-0.0131	-0.0173	-0.0156	-0.0235	0.0226	-0.0089
	(0.60)	(0.39)	(0.23)	(0.32)	(0.12)	(0.05)	(0.52)
ΔCG	-0.4008	0.0883	-0.1794	-0.0071	0.0910	-0.1356	-0.0151
	(0.00)	(0.28)	(0.26)	(0.86)	(0.00)	(0.20)	(0.18)
ΔCG_{t-1}	0.1381	0.0848	0.2704	0.0460	0.0370	-0.0845	0.0057
	(0.58)	(0.02)	(0.08)	(0.01)	(0.58)	(0.33)	(0.80)
ΔSIZE	-0.6432	-0.6399	-0.6480	-0.6450	-0.6405	-0.4487	-0.6475
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ΔGROWTH	0.0013	0.0013	0.0013	0.0013	0.0013	0.0016	0.0013
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ΔROA	-0.0016	0.0016	0.0016	0.0017	0.0016	0.0003	0.0017
	(0.74)	(0.74)	(0.74)	(0.74)	(0.75)	(0.94)	(0.73)
ΔLEV	-0.2521	-0.2529	-0.2344	-0.2473	-0.2609	-0.3096	-0.2391
	(0.08)	(0.10)	(0.14)	(0.09)	(0.08)	(0.03)	(0.12)
ΔCASH	-0.1516	-0.1355	-0.1435	-0.1475	-0.1528	-0.3231	-0.1479
	(0.68)	(0.71)	(0.70)	(0.70)	(0.68)	(0.25)	(0.69)
ΔWEDGE	-0.0507	-0.0483	-0.0514	-0.0475	-0.0461	-0.0217	-0.0489
	(0.49)	(0.53)	(0.50)	(0.53)	(0.55)	(0.77)	(0.51)
ΔBSIZE	-0.0071	-0.0069	0.0058	-0.0068	0.0072	-0.0102	-0.0014
	(0.54)	(0.55)	(0.66)	(0.56)	(0.51)	(0.31)	(0.93)
ΔTQ_{t-1}	-0.2793	-0.2817	-0.2773	-0.2809	-0.2815	-0.2128	-0.2802
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Adj-R2	0.3243	0.3239	0.3288	0.3235	0.3246	0.3639	0.3236

Regressions relate changes in Tobin's Q (TQ) over the period 1998-2004 to changes in the following variables – board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND), overall board governance score (BOARD), natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), return on assets (ROA), leverage (LEV), cashflow rights of largest shareholder (CASH), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), size of the board of directors (BSIZE) and the lagged dependent variable. The regressions include fixed period effects and White standard error correction. Data sourced from Worldscope and company annual reports.

Table 7 – Changes in Board Governance Measures Related to Changes in Performance (ROA)

	ΔROA	ΔROA	ΔROA	ΔROA	ΔROA	ΔROA	ΔROA
Where:	*(ΔCG = ΔBIND)*	*(ΔCG = ΔCCSPLIT)*	*(ΔCG = ΔAC)*	*(ΔCG = ΔNC)*	*(ΔCG = ΔRC)*	*(ΔCG = ΔACIND)*	*(ΔCG = ΔBOARD)*
c	-1.0618	-1.1598	-1.0662	-1.3125	-1.2789	-0.7665	-1.3443
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.05)	(0.00)
ΔCG	-0.6990	2.2464	-2.6765	1.3022	1.1709	-0.3616	0.4268
	(0.79)	(0.05)	(0.09)	(0.00)	(0.00)	(0.83)	(0.01)
ΔCG_{t-1}	-6.3290	1.1733	-0.9583	0.5439	0.4446	-0.5040	0.1800
	(0.00)	(0.00)	(0.54)	(0.05)	(0.19)	(0.75)	(0.10)
ΔSIZE	14.7820	14.8757	14.7944	14.8163	14.7843	14.4271	14.8066
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ΔGROWTH	0.0320	0.0319	0.0319	0.0320	0.0320	0.0291	0.0321
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ΔLEV	-34.3648	-34.2544	-34.3175	-34.3805	-34.3874	-31.2321	-34.3138
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ΔCASH	-1.6104	-1.4942	-2.2771	-1.9332	-1.8700	-0.4632	-1.5940
	(0.69)	(0.72)	(0.61)	(0.66)	(0.67)	(0.92)	(0.71)
ΔWEDGE	0.1956	0.1065	0.1048	0.1407	0.1363	0.5173	0.1579
	(0.79)	(0.89)	(0.90)	(0.86)	(0.87)	(0.34)	(0.84)
ΔBSIZE	0.4072	0.3913	0.4236	0.4030	0.3975	0.5017	0.2876
	(0.15)	(0.18)	(0.15)	(0.15)	(0.17)	(0.08)	(0.32)
ΔROA_{t-1}	-0.3178	-0.3207	-0.3205	-0.3179	-0.3179	-0.3420	-0.3180
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Adj-R2	0.4964	0.4972	0.4969	0.4968	0.4965	0.4814	0.4967

Regressions relate changes in return on assets (ROA) over the period 1998-2004 to changes in the following variables – board independence (BIND), separation of the positions of chairman and CEO (CCSPLIT), existence of an audit committee (AC), existence of a nomination committee (NC), existence of a remuneration committee (RC), audit committee independence (ACIND), overall board governance score (BOARD), natural logarithm of total assets in US dollars (SIZE), one year sales growth (GROWTH), leverage (LEV), cashflow rights of largest shareholder (CASH), control rights of largest shareholder divided by the cashflow rights of largest shareholder (WEDGE), size of the board of directors (BSIZE) and the lagged dependent variable. The regressions include fixed period effects and White standard error correction. Data sourced from Worldscope and company annual reports.

Notes

[1] Johnson et al. (2000) provides US-dollar adjusted stock price movements during the crisis.
[2] Lane et al. (2006) indicate that the new corporate governance recommendations may even be harmful to family-owned businesses.
[3] In East Asia, a positive relationship between corporate governance and market valuation has been found in China, India, Indonesia, Malaysia, South Korea, Taiwan and Thailand (Black, Jang and Kim 2006; Bai et al. 2005; Campos, Newell and Wilson 2002; Nam and Nam 2004).
[4] Usable board data from the Philippines is not available. Japan and China are not examined as they were less affected by the Asian crisis.
[5] The small number of sample companies from Indonesia, South Korea and Thailand reflects the difficulty in obtaining adequate board data in the countries over the period 1998 to 2004.
[6] Indonesia introduced its new listing requirements in 2000 and corporate governance code in 2001, Malaysia in 2000, Singapore in 2001, South Korea in 1999, Taiwan in 2002, Thailand in 1999 and Hong Kong's original code was introduced in 1993. Hong Kong has also introduced a revised corporate governance code effective 2005.
[7] Indonesian companies have a board of commissioners (equivalent to a board of directors) and a board of directors (equivalent to company executives). The two boards are separated by law, so no-one can sit on both boards. In this study only commissioners have been included as "directors" in the board governance measures. Audit committees in Indonesia also include external members who have not been included in audit independence measures.
[8] In Taiwan, supervisors do not have the right to vote in board matters, but their role is to "independently" monitor company activities. In reality, supervisors are usually representatives of controlling or block shareholders. In this study supervisors have not been included as "directors" in the board governance measures.
[9] The proportion of independent directors on the board. Directors were only counted as independent if the company specifically highlighted the directors as "independent" in the director biography or corporate governance sections of the annual reports. Those that supposedly fulfilled independence requirements but weren't identified as "independent" were not included. Directors were traced back through time to ensure the latest definition of independence in each country was applied to previous periods. Due to the relationship between board independence and board size, the models were also run with the number of independent directors in place of board independence. The results were consistent with those presented.
[10] The overall board governance score is computed as follows: one point for each independent director, one point for Chairman/CEO split and one point for each board committee (audit, nomination and remuneration).
[11] Non-US companies listed on US stock exchanges (NYSE, Nasdaq and AMEX) have been shown to have better corporate governance than non-listed companies (Wojcik et al., 2005).
[12] Change analysis has the potential to overcome a weakness of cross-sectional studies (correlated omitted variable problems) by assuming that any undocumented factors determining these variables are constant over time.
[13] Proxies and controls identified from previous research: Yermack (1996), Joh (2000), Yeh, Lee and Woidtke (2001), Claessens et al. (2002), Lins (2003), Doidge et al. (2004), Brown and Caylor (2005), Larcker et al. (2005).
[14] To address endogeneity concerns, the model was also run with the control variables as levels instead of differences, with no significant changes to the results.
[15] Most companies in Taiwan report that their supervisors perform a similar function to an audit committee.
[16] This study hasn't presented changes in remuneration and nomination committee independence over the period as this data is not consistently available across all countries.
[17] This score allows for simultaneous changes in a number of board governance mechanisms.
[18] The five companies that saw their overall board governance deteriorate from 1998-2004 saw a one point drop in their overall board governance score. This was due to a reduction in the number of independent directors or the combining of the positions of Chairman and CEO.
[19] The first and last regressions have high adj-R^2 which could indicate multicollinearity. However, the high explanatory power is attributable to the inclusion of country dummy variables.
[20] This is consistent with Davis and Marquis (2005), who find that companies cross-listed in the US are unlikely to substantially adopt US-style governance practices. As there is no significant difference between cross-listed and non-cross-listed companies, this variable hasn't been used in later analysis.
[21] The significant co-efficient on board size is expected as the overall board governance score is a

function of the number of independent directors which is usually higher on bigger boards. However, removing this variable does not affect the results.